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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,041	07/10/2007	Yoshitsugu Morita	DC10032PCT (71,051-071)	3380
27305 7590 06/02/2010 HOWARD & HOWARD ATTORNEYS PLLC 450 West Fourth Street Royal Oak, MI 48067			EXAMINER HUDA, SAEED M	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 06/02/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,041	Applicant(s) MORITA ET AL.	
	Examiner SAEED M. HUDA	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-9 and in the reply filed on 12/22/2009 is acknowledged. The traversal is on the ground(s) that the basis for the restriction requirement is not clearly presented. This is not found persuasive because a clear showing of the reasoning behind the restriction has been presented.
2. The common technical feature is not novel for the same reasons provided in the obviousness rejection discussed below.

The requirement is still deemed proper and is therefore made FINAL

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyajima et al. (US 2002/0015748 A1) in view of Lee et al. (EP-A-0 99798).
 - a. Regarding claim 1, Miyajima et al. teach a method of manufacturing a semiconductor device sealed in a cured resin body by placing an unsealed semiconductor device into a mold and subjecting a curable resin composition that fills the spaces between the mold and the unsealed semiconductor device to compression molding under a predetermined molding temperature (abstract,

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[0001], figure 1). Miyajima et al. fail to teach the use of which is a liquid silicon composition, wherein the viscosity at room temperature is of 90 Pa·s or less.

Lee et al. teach a composition set of a hydrosilylation-curable liquid silicone composition used in cured injection moldable compositions (abstract).

Lee et al. go on to teach that the silicon composition has a viscosity of less than 90 Pa·s at room temperature (paragraph 66 and examples 1-2) and is suitable for the encapsulation of chip scale packages (paragraph 19). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Miyajima et al. by selecting the invention of Lee et al. because this will yield desirable properties such as low alpha particle emissions, very good moisture resistance, excellent electrical insulation, excellent thermal stability, and very high ionic purity ([0002]).

As shown in the prior art rejection above, the structure of the material used in the prior art is the same as that being claimed and disclosed in the specification of this application. Since both materials are the same in structure and the viscosity used in the prior art meets the claimed viscosity, the material of the prior art would necessarily have the same curability property as that in the invention of Applicant. It has been well settled that discovering a new property of an old product is not patentable.

b. Regarding claims 2-3, Miyajima et al. in view of Lee et al. teach that the silicone composition is a hydrosilylation-curable liquid silicone composition (Lee

et al. paragraphs 57-58) and that the cured silicone has a modulus of elasticity of 1 GPa or less (Lee et al. table 1);

c. Regarding claim 4, Miyajima et al. teach clamping the semiconductor device between the upper mold and the lower mold, and compression molding the adopted resin (figure 2).

d. Regarding claim 5, Miyajima et al. teach that the obtained sealed assembly is cut into separate sealed semiconductor devices (figure 5).

e. Regarding claims 6-7, it is a common practice to mount chip on a printed circuit board, electrically connecting the chips to the printed circuit board via bonding wires, and sealing the chips and the connections with a cured resin (figure 13).

f. Regarding claims 8-9, Miyajima et al. teach the use of release films (paragraph 50) held against the inner surface of the mold by air suction (paragraph 12).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAEED M. HUDA whose telephone number is (571)270-5514. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KHANH NGUYEN/
Primary Examiner, Art Unit 1791

/SAEED M. HUDA/
Examiner, Art Unit 1791